

ABSTRACT OF THE DISCLOSURE

A capacitor structure is formed over a semiconductor substrate by atomic layer deposition to achieve uniform thickness in memory cell dielectric layers, particularly where the dielectric layer is formed in a container-type capacitor structure. In accordance with several embodiments of the present invention, a process for forming a capacitor structure over a semiconductor substrate is provided. Other embodiments of the present invention relate to processes for forming memory cell capacitor structures, memory cells, and memory cell arrays. Capacitor structures, memory cells, and memory cell arrays are also provided.